

SCOMBROID FISH POISONING

What is scombroid fish poisoning?

Scombroid fish poisoning is a syndrome resembling an allergic reaction that occurs within a few hours of eating fish contaminated with histamine. There are no specific diagnostic tests for scombroid fish poisoning in humans, and diagnosis is generally made based on symptoms and recent dietary history.

What are the symptoms of scombroid fish poisoning?

Illness typically begins minutes to hours after ingestion of the toxic fish and resembles a histamine reaction. Associated symptoms include tingling and burning sensations around the mouth, facial flushing and sweating, nausea and vomiting, headache, palpitations, dizziness and rash. Some patients report that the implicated fish has a peppery or a metallic taste.

How do people get scombroid fish poisoning?

Fish in the Scombridae family (tuna, mackerel, skipjack and bonito) are the most common vehicles for scombroid fish poisoning. Other fish, however, have been implicated in scombroid fish poisoning, and include mahi mahi, bluefish, marlin, and escolar. When susceptible fish are not promptly and continuously refrigerated, bacteria can metabolize naturally occurring histamine to produce scombrotoxin, which consists of histamine and other amines. The presence of 50 parts per million (ppm) or more histamine in fish is indicative of decomposition whether or not there is gross evidence of spoilage, such as bad odor. When illness results, histamine levels in implicated fish have commonly been at least 200 ppm and often greater than 500 ppm. Histamine is heat resistant and can, therefore, cause illness even when fish is properly canned or cooked thoroughly. While some contaminated fish will not show any outward signs of spoilage, others will show such signs as a bad odor. Cooked fish that has spoiled may have a “honey combed” appearance.

How is scombroid fish poisoning treated?

Scombroid fish poisoning is usually mild and duration is short, making treatment unnecessary. For more severe cases or in patients with underlying medical conditions, oral antihistamines may be beneficial.

How common is scombroid fish poisoning?

The occurrence of scombroid fish poisoning is worldwide. In California, scombroid fish poisoning is reportable; in 1999 and 2000, there were 17 and 26 cases of scombroid fish poisoning reported in California, respectively.

What can a person do to prevent scombroid fish poisoning?

- Fish should be appropriately refrigerated from the time of capture to the time cooked.
- Fish with a bad odor or a “honey-combed” appearance should not be consumed.
- If scombroid fish poisoning is suspected, suspected fish should be saved for laboratory analysis.

What is the health department doing about scombroid fish poisoning?

Scombroid fish poisoning is reportable in California, and local health departments are available for consultation on scombroid fish poisoning to health care providers. CDHS' Food and Drug Branch will traceback any implicated fish to remove it from the market.

Where can I get more information on scombroid fish poisoning?

Several other public health agencies have posted resources on scombroid fish poisoning to the internet. These include:

CDC's fact sheet on marine toxins:

http://www.cdc.gov/ncidod/dbmd/diseaseinfo/marinetoxins_g.htm

FDA's advisory note on scombroid fish poisoning: <http://vm.cfsan.fda.gov/~lrd/sea-scm.html>

FDA, Center for Food Safety and Applied Nutrition (CFSAN)'s Fish and fisheries products hazards and controls guidance, Third edition:

<http://www.cfsan.fda.gov/~comm/haccp4g.html>